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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte HIDEO MATSUNAGA and MASAOMI HIRUTA

Appeal 2009-014954
Application 10/802,874
Technology Center 3700

Before JOHN C. KERINS, STEFAN STAICOVICI and
MICHAEL C. ASTORINO, *Administrative Patent Judges*.

KERINS, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Hideo Matsunaga and Masaomi Hiruta (Appellants) seek our review under 35 U.S.C. § 134 of the Examiner's final rejection of claims 1-20. We have jurisdiction under 35 U.S.C. § 6(b) (2002). An oral hearing was held on January 10, 2012, with S. Stuart Lee, Esq., appearing on behalf of Appellants.

We AFFIRM-IN-PART.

THE INVENTION

Appellants' invention is directed to a hollow golf club head. Claim 1, reproduced below, is illustrative:

1. A hollow golf club head made of metal comprising:

a face portion;

a sole portion;

a side portion; and

a crown portion,

wherein the crown portion and at least a part of the side portion have a Young's modulus lower than the face portion and the sole portion, and an intersection angle between the crown portion and the side portion is larger than 90 degrees.

THE REJECTION

The Examiner has rejected claims 1-20 under 35 U.S.C. § 103(a) as being unpatentable over Tsuchiya (US 5,346,217, issued Sep. 13, 1994) in

view of Motomiya (US 4,438,931, issued Mar. 27, 1984), Hoshi (US 5,205,560, issued Apr. 27, 1993), Tsuchida (US 5,255,913, issued Oct. 26, 1993), Kusumoto (US 6,634,958 B1, issued Oct. 21, 2003), Murphy (US 6,332,847 B2, issued Dec. 25, 2001), Dekura (US 5,538,246, issued Jul. 23, 1996) and Imai (US 6,056,649, issued May 2, 2000).

ISSUES

Did the Examiner err in supporting the conclusion of obviousness of the claims with a finding that the Kusumoto, Murphy, Dekura and Imai references disclose an intersection angle between a crown portion and a side portion of a golf club head of greater than 90 degrees?

Did the Examiner err in finding that the Tsuchiya reference discloses a golf club head in which the sole portion and side portion are made of the titanium alloy Ti-6Al-4V?

Did the Examiner err in concluding that it would have been obvious, in view of the teachings of Tsuchida and/or Hoshi, to construct a golf club head of the type disclosed in Tsuchiya having an upper side portion with a Young's modulus lower than the lower side portion and the hosel portion?

PRINCIPLES OF LAW

While patent drawings not designated as being drawn to scale cannot be relied upon to define precise proportions of elements if the specification is completely silent on the issue, *Hockerson-Halberstadt, Inc. v. Avia Group Int'l*, 222 F.3d 951, 956 (Fed. Cir. 2000), that does not mean, "that things patent drawings show clearly are to be *disregarded*." *In re Mraz*, 455 F.2d 1069, 1072 (CCPA 1972). A drawing teaches all that it reasonably discloses

and suggests to a person of ordinary skill in the art. *In re Aslanian*, 590 F.2d 911, 914 (CCPA 1979).

ANALYSIS

Appellants argue claims 1-13 and 15 as a group. Claim 1 will be taken as being representative of that group, with claims 2-13 and 15 standing or falling with claim 1. Appellants present separate arguments for the patentability of independent claims 14 and 16. Claims 17-20, which depend from claim 16, will stand or fall with claim 16, as no separate arguments for patentability were advanced.

Appellants' sole contention with respect to the rejection of claim 1 is that the Examiner improperly relied on the drawing figures in Kusumoto, Murphy, Dekura and Imai as establishing a disclosure of a golf club head having an intersection angle between the crown portion and the side portion that is larger than 90 degrees. (Appeal Br. 15). We agree with Appellants that there is no explicit written disclosure of this constructional feature in the text of any of those four references. Notwithstanding, we do not agree with Appellants that it was error on the part of the Examiner to rely on the drawing figures of those references as disclosing the claimed constructional feature.

Appellants' position is that reliance on the drawings alone is not permitted under Federal Circuit precedent set forth in *Hockerson-Halberstadt, Inc. v. Avia Group Int'l.*, 222 F.3d 951 (Fed. Cir. 2000); *Go Medical Indus. Pty. Ltd. v. Inmed Corp.*, 471 F.3d 1264 (Fed. Cir. 2006); and *Nystrom v. TREX Co.*, 424 F.3d 1136 (Fed. Cir. 2005). (Appeal Br. 15-19; Reply Br. 4-7). Appellants further argue that the case law principles set

forth in MPEP § 2125 and relied on by the Examiner are obsolete or are of limited applicability or significantly constrained by the above Federal Circuit decisions. (Reply Br. 5-6).

Appellants do not contest the Examiner's finding that the drawing figures in the Kusumoto, Murphy, Dekura and Imai references show golf club heads having an intersection angle between the crown portion and the side portion of greater than 90 degrees. (Appeal Br., *passim*; Reply Br., *passim*). Rather, Appellants' position is that this must be ignored because the references do not also provide, in their written disclosures, some explicit statement regarding proportions or sizes of these elements or of this specific constructional aspect of the golf club head.

Hockerson-Halberstadt is not controlling here. In that case, our reviewing court precluded a patentee from escaping a prosecution history estoppel situation, involving claim construction, by refusing to allow the patentee to rely on its own patent drawings as evidencing that a statement made during prosecution, giving rise to the estoppel, was erroneous. *Hockerson-Halberstadt*, 222 F.3d at 956. Rather, the Court held that persons of ordinary skill in the art, being aware that figures in a patent are not drawn to scale unless otherwise indicated, would understand the arguments in the prosecution history as clearly disclaiming a groove having a width greater than the combined width of the fins, regardless of the fact that the drawings included embodiments illustrating such a groove/fin relationship. *Id.* In effect, the Court refused to grant the patentee a "mulligan" absent clear evidence that the arguments were completely contrary to what the patent disclosed, so as to maintain the integrity of the

public notice function provided by the patent and its prosecution history. *Id.* at 957.

The decision in the *Go Medical* case precluded a patentee from claiming priority back to an earlier application, where it was asserted that the drawings in the earlier application, without any accompanying written description or indication that the drawings were to a particular scale, disclosed a catheter sheath length of precisely 1.5 cm. *Go Medical*, 471 F.3d at 1273. The *Wright* case, also cited by Appellants, involved a comparison of application drawings to those in a prior art patent in an unpersuasive attempt to show that a chime length of a whiskey barrel in the latter would be roughly $\frac{1}{2}$ to 1 inch in length. *In re Wright*, 569 F.2d 1124, 1127 (C.C.P.A. 1977). The Court there cautioned that arguments based on measurements obtained from patent drawings are regarded as having little value where the patent does not disclose that the drawings are to scale and absent any disclosure of quantitative values. *Id.* In *Nystrom*, the Federal Circuit reversed a judgment of invalidity that was founded upon evidence in the form of computer-generated models of deck boards illustrated in a prior art patent, and computations performed on those models to determine a curvature-to-width ratio of the boards. *Nystrom*, 424 F.3d at 1148.

These cases stand for the proposition that where precise measurement or considerable and careful evaluation of an illustration in a prior art reference or in a prior application are required in order to demonstrate that the illustration meets a dimensional limitation of a claim, findings or conclusions based upon such evaluation will be disfavored or assigned little weight when the prior art reference lacks explicit disclosure that the

drawings are to scale or that the particular elements at issue possess some particular dimensional relationship.

Here, the claim limitation at issue is directed to an intersection angle being larger than 90 degrees, 90 degrees being a right angle. In addition to the claimed range spanning angles from just above 90 degrees all the way to 180 degrees, simple observation of the drawings in the Kusumoto, Murphy, Dekura and Imai references, would reveal to a person of ordinary skill in the golf club art that those club head designs included an intersection angle between a crown portion and a side portion of greater than 90 degrees, as claimed. Appellants maintain that “the Examiner is not permitted to speculate beyond the reasonable disclosures of the references”. (Appeal Br. 19). We agree. However, as noted above, the claimed intersection angle is reasonably disclosed through observation. As the CCPA noted in *Mraz*, while patent drawings are not working drawings, “we did not mean [in the *Wilson* case] that things patent drawings show clearly are to be *disregarded*.” *In re Mraz*, 455 F.2d 1069, 1072 (C.C.P.A. 1972). That is precisely what Appellants would have the Examiner and this Board do.

Appellants additionally argue that persons of ordinary skill in the art would not reasonably view Kusumoto and Murphy as disclosing or suggesting the claimed intersection angle, “because both references are directed to hosel integration with the clubhead”, which is at the heel of the club and not the toe, where the claimed intersection angle would be measured.¹ (Appeal Br. 18). Notwithstanding, the drawings in Kusumoto and Murphy plainly show an intersection of the crown and side portions,

¹ Appellants do not make the same argument in reference to the Dekura and Imai patents.

and, especially in the Murphy patent, the drawings provide detail across the entire clubhead of various faceting or contouring. (Murphy, Figs. 1-7). We are not persuaded that a person of ordinary skill in the art would disregard portions of the drawings of the entire clubhead merely because the particular aspects being addressed in detail are at one end of the club rather than at the other.

Finally, Appellants contend that “none of the references . . . show with any particularity the intersection angle of the crown portion and the side portion to support the Examiner’s position that these reference[s] disclose the claimed intersection angle.” (Reply Br. 7). The references, however, show with at least the same level of particularity as Appellants, the crown portion and the side portion, and the intersection of those two portions. All that is lacking is an express disclosure of the angle at which the intersection is formed. Given that it can be readily determined by observing the drawings in these references that the intersection angle is greater than a right angle, which is all that is required by claim 1, the drawings do disclose this claimed feature with sufficient particularity.

The rejection of claim 1, and of claims 2-13 and 15 grouped therewith, will be sustained.

Appellants additionally argue, with respect to claim 14, that the portions of the Tsuchiya reference relied upon by the Examiner as disclosing a sole and side portion being made of a Ti-6Al-4V titanium alloy (col. 9, 1. 11-col. 10, 1. 2) actually discloses the use of that alloy for “a part of said face” and not the sole and side portion. (Appeal Br. 22). The Examiner, however, also cites to column 6, line 64-column 7, line 27 and column 8, lines 1-15, as containing disclosure relevant to the claim limitation. (Ans.

14-15). The disclosure at column 8, lines 1-15, evidences that Tsuchiya teaches making not only the face, but also the crown and sole (which, in the referenced Figure 7, includes the side portion), of the claimed Ti-6Al-4V alloy. Accordingly, Appellants' argument is not persuasive, and the rejection will be sustained.

Appellants argue, with respect to claim 16, that the Tsuchida and Hoshi references disclose only a crown portion having a different Young's modulus than the rest of the shell of the clubhead, and that this does not amount to a disclosure of an upper side portion of the clubhead having a lower Young's modulus than the lower side portion, particularly in view of the fact that claim 16 recites, as separate elements, a crown portion and a side portion which has upper and lower portions. (Appeal Br. 23-25). We agree.

While the Examiner has presented rationale as to the purpose for using a crown with a different Young's modulus than the remainder of the clubhead, we conclude that the Examiner has not shown why it would have been obvious, by a preponderance of the evidence, to provide upper and lower side portions having different Young's moduli.

The rejection of claim 16, and of claims 17-20 depending therefrom, will not be sustained.

CONCLUSIONS

The Examiner did not err in supporting the conclusion of obviousness of the claims with a finding that the Kusumoto, Murphy, Dekura and Imai references disclose an intersection angle between a crown portion and a side portion of a golf club head of greater than 90 degrees.

The Examiner did not err in finding that the Tsuchiya reference discloses a golf club head in which the sole portion and side portion are made of the titanium alloy Ti-6Al-4V.

The Examiner did err in concluding that it would have been obvious, in view of the teachings of Tsuchida and/or Hoshi, to construct a golf club head of the type disclosed in Tsuchiya having an upper side portion with a Young's modulus lower than the lower side portion and the hosel portion.

DECISION

The decision of the Examiner to reject claims 1-15 is affirmed. The decision of the Examiner to reject claims 16-20 is reversed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED-IN-PART

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